

FY05-LIII(53)-138

“Field Demonstration of Enhanced Sorbent Injection for Mercury Control”

Contractor: ALSTOM Power, Inc.
Principal Investigator: Srivats Srinivasachar.

PARTICIPANTS

<u>Sponsor</u>	<u>Cost Share</u>
Basin Electric Power Cooperative	\$ 50,000
Minnkota Power Cooperative (In-kind)	\$ 10,000
ALSTROM	\$ 151,065
DOE	\$1,233,195
NDIC	<u>\$ 200,000</u>
Total Cost	\$1,584,260

Project Schedule - 24 Months

Contract Date – 10/1/05
Start Date – 10/13/05
Completion Date – 7/31/06

Project Deliverables

Contract Signed: 10/1/05✓
Quarterly Reports:
10/1/05(✓);
3/1/06(✓);
Final Report 7/31/06();

OBJECTIVE / STATEMENT OF WORK:

Conduct a seven-week full-scale demonstration of mercury capture at the Leland Olds Station (LOS). The LOS uses low chloride lignite and a high temperature flue gas entering an electrostatic precipitator (ESP), and represents one of the most challenging boiler configurations for mercury control. Different enhanced sorbents (chemical additives) and test parameters will be evaluated for effectiveness of mercury capture.

STATUS

October 2005 Status Report

Activities to date: Site kick-off meeting at the BEPC LOS; Completed fabrication of a mobile Mer-Cure activated char feeding system and installation of injection and sampling ports. Baseline mercury measurements were initiated. Tests at the LOS are scheduled from mid- June to mid-August, 2005.

March 2006 Status Report

Field testing has been completed at the LOS demonstrating the Mer-CureTM system. The testing included parametric testing using a family of Mer-CureTM system sorbents. Chemical analysis of solids samples and reduction of various data sets are currently being performed and will be included in the final report.